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Reciprocal interactions between group perceptions of leader charisma and group mood through mood contagion

Thomas Sy [a,*], Jin Nam Choi [b], Stefanie K. Johnson [c]

[a] University of California, Riverside, United States
[b] Seoul National University, South Korea
[c] University of Colorado, Denver, United States

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ABSTRACT

Departing from the static perspective of leader charisma that prevails in the literature, we propose a dynamic perspective of charismatic leadership in which group perceptions of leader charisma influence and are influenced by group mood. Based on a longitudinal experimental study conducted for 3 weeks involving 116 intact, self-managing student groups, we found that T1 group perceptions of leader charisma mediate the effect of leader trait expressivity on T2 positive and negative group moods. T2 positive and negative group moods influence T3 distal charisma perceptions by affecting T2 proximal perceptions of leader effectiveness. The current findings offer critical insights into (a) the reciprocal relationship between group perceptions of leader charisma and group mood, (b) the dynamic and transient nature of group perceptions of leader charisma, (c) the importance of understanding negative mood in charismatic leadership, and (d) the mechanism through which charismatic leadership perceptions can be formed and sustained over time.

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1. Introduction

Researchers and practitioners alike have been interested in charismatic leaders because of their influence on group outcomes (Bass, 1998; Bass & Riggio, 2006). Charismatic leaders conjure images of masterful leaders orchestrating and channeling the mood of followers in unison to triumph over seemingly insurmountable challenges and to achieve performance beyond expectations. Although the efficacy of charismatic leaders is postulated to operate through this affect elicitation in groups, the body of research examining the emotional aspects of charisma is surprisingly small (Erez, Misangyi, Johnson, LePine, & Halverson, 2008; Jung & Sosik, 2006) despite hundreds of studies on the correlation and effects of charisma (e.g., see meta analyses of DeGroot, Kiker, & Cross, 2000; Fuller, Patterson, Hester, & Donna, 1996). Only a few studies have examined the link between leader charisma and follower affect (i.e., Bono & Ilies, 2006; Cherulnik, Donley, Wiewel, & Miller, 2001; Damen, van Knippenberg, & van Knippenberg, 2008; Johnson, 2008, 2009), and only one study has examined this link at the group level (Erez et al., 2008), which is the focus of the current research. Empirical research demonstrates that the interpersonal dynamics of dyads is qualitatively different compared with that of groups (Laughlin, Hatch, Silver, & Boh, 2006) because groups are governed by group norms and a complex network of past relationships among multiple members. The extent that the effects of charismatic leadership are manifested through group mood makes understanding the fundamental nature of this relationship imperative.

Leader charisma is identified as a driver of follower mood (Cherulnik et al., 2001) and group mood (Erez et al., 2008). The expressive communication style associated with charismatic leadership is presumed to precipitate this effect (Bono & Ilies, 2006; Johnson, 2008, 2009), although empirical validation of this relationship is rare. Thus, we investigate the extent to which leader

* Corresponding author at: Department of Psychology, University of California, 900 University Ave., Riverside, CA 92521, United States. Tel.: +1 951 827 5059; fax: +1 951 827 3985.
E-mail address: thomas.sy@ucr.edu (T. Sy).

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expressivity (as a trait) explains the emergence of group mood by shaping group perceptions of leader charisma. Conversely, social constructionist views of leadership argue that experiences of groups constitute an antecedent of shared perceptions of leadership (Meindl, 1995), making it likely that group mood will influence group perceptions of charisma. Therefore, the idea that group perceptions of leader charisma influence group mood and group mood influences group perceptions of leader charisma is possible, resulting in a reciprocal feedback loop between leader charisma and group mood.

Extant research has only focused on one or the other side of this equation, leaving the issue on which between leader charisma and group mood is the cause and which is the consequence unresolved. A reliance on correlational and non-longitudinal experimental designs has exacerbated this problem (Bono & Ilies, 2006; Cherulnik et al., 2001; Damen et al., 2008; Erez et al., 2008; Johnson, 2008). In the current study, we test these relationships with intact, self-managing work groups (i.e., with existing norms and interaction histories) using a longitudinal experimental design unfolding over 3 weeks that offers both ecological validity and methodological rigor. Thus, we propose a recursive feedback loop between group perceptions of leader charisma and group mood (see Fig. 1 for the overall conceptual framework).

As a result, this study makes several contributions to the current literature. First, we examine the effects of leader trait expressivity as a driver of group perceptions of leader charisma and group mood, answering the call to examine leader traits that influence perceptions of charisma (Walter & Bruch, 2008) and group mood (Erez et al., 2008). Second, we investigate for the first time the reciprocal and dynamic relationship between group perceptions of leader charisma and group mood in a longitudinal design, highlighting the transient nature of charisma perceptions and exploring the extent to which a single affective event can change group perceptions of leader charisma. This investigation departs from past research that primarily characterized leader charisma as a stable construct that endures over time. Third, although previous research largely ignored the role of negative moods among charismatic leaders, we examine the extent to which charismatic leaders are equally effective at sending positive and negative moods, providing a more complete understanding of charismatic leadership. Fourth, this research is the first to test the differential consequences of positive and negative group moods on distal group perceptions of leader charisma through the proximal group perceptions of leader effectiveness. This research reveals the extent to which positive and negative group moods amplify and attenuate distal group perceptions of leader charisma as well as the responsible mechanisms.

2. Leader as the primary source of group mood

In the current study, we answer the call to examine how leader characteristics influence the moods of others (Hareli & Rafaeli, 2008), particularly group mood (Erez et al., 2008). We focus on the leader trait of expressivity as a driver of mood contagion. Mood contagion is the transfer of moods between individuals, and it tends to occur at an automatic and subconscious level (Neumann & Strack, 2000). The mood contagion process includes two stages in which followers unintentionally mimic the public affective displays (e.g., facial, postural, or vocal mimicry) of leaders, and then afferent feedback from the mimicry induces a corresponding mood response (Duclos et al., 1989; Strack, Martin, & Stepper, 1988). Mood contagion is particularly salient among groups with high membership stability and task and social interdependence (Bartel & Saavedra, 2000).

Given that leaders are particularly salient, powerful, and central organizational figures (Dasborough, 2006; George, 2000), they have the capability of influencing follower positive and negative affect (Dasborough, Ashkanasy, Tee, & Tse, 2009), which in turn have implications for employee outcomes such as task coordination, customer service, creativity, and group performance (George, 1995; George & Zhou, 2007; Ilies et al., 2007; Sy, Côté, & Saavedra, 2005). Although the idea that followers can influence the moods of leaders is theoretically possible (Hsee, Hatfield, Carlson, & Chemtob, 1990; Tee & Ashkanasy, 2008), leaders have greater influence on the moods of group members than non-leaders (Bono & Ilies, 2006; Fredrickson, 2003; Walter & Bruch, 2008). This is likely true for all

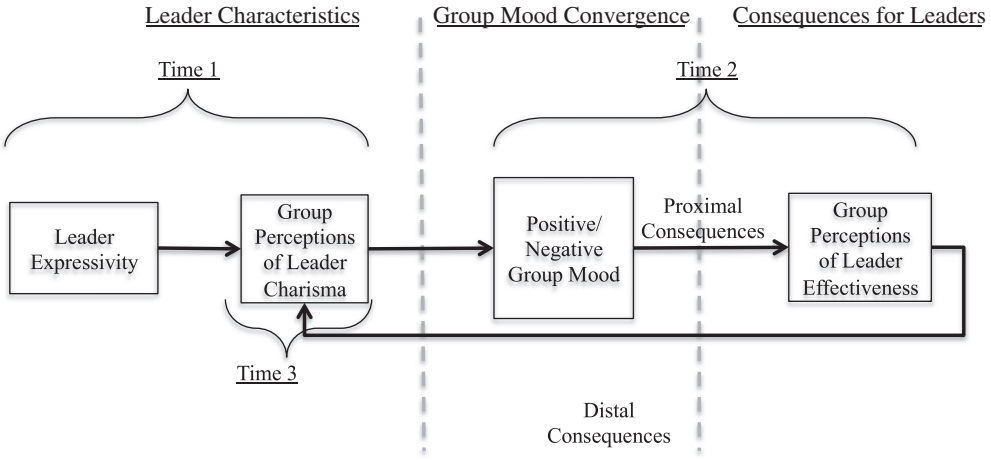

Fig. 1. Cyclical model of group perceptions of leader charisma as the antecedent and consequence of group mood.

leaders, but the relationship is expected to be particularly strong among leaders who are highly expressive (Bass, 1988; Friedman & Riggio, 1981; Gooty, Connelly, Griffith, & Gupta, 2010; Johnson & Dipboye, 2008).

Mood contagion requires one to be able to observe and mimic the affective displays of another (Hatfield, Cacioppo, & Rapson, 1994; Neumann & Strack, 2000). Therefore, a necessary precondition for mood contagion to occur is for the moods of the sender to be perceptible to others. Researchers have proposed that leader expressivity, defined as nonverbal affective expressiveness (Friedman, Prince, Riggio, & DiMatteo, 1980), is a likely mechanism for the affective link between leaders and followers (Dasborough et al., 2009; Johnson, 2008, 2009). Because mood contagion operates at the subconscious level via mimicry, leader expressivity may have more influence on group mood than message content, which reflects more conscious inferential process mechanisms (Côté, van Kleef, & Sy, 2013). Although the theorizing has been rich, the empirical evidence has been poor. One study has directly examined the role of leader expressivity and *positive* group mood (Erez et al., 2008); *negative* group mood was completely ignored.

Studying negative group mood is important, given that positive affect and negative affect represent two distinct constructs rather than two sides of a single continuum (Watson & Tellegen, 1985), and that positive affect and negative affect are associated with different action tendencies and have distinct implications for behavior (Frijda, 1986; Lazarus, 1991). All leaders, regardless of general affective orientations, are likely to experience and express negative moods in a number of instances (Dasborough, 2006). Expressive leaders should also be equally capable of manifesting positive and negative expressions because leader expressivity is a global attribute that should facilitate both forms of affective expression (Friedman et al., 1980).

Hypothesis 1a. Leader expressivity will positively influence positive group mood.

Hypothesis 1b. Leader expressivity will positively influence negative group mood.

3. Group perceptions of leader charisma and mood contagion

Leader expressivity is also expected to influence group perceptions of leader charisma because affective expressivity is a key indicator of charismatic leadership (Bono & Ilies, 2006; Cherulnik et al., 2001; Erez et al., 2008). Experimental research shows that manipulating leader expressiveness leads to greater perceptions of leader charisma (Holladay & Coombs, 1994; Johnson & Dipboye, 2008; Kirkpatrick & Locke, 1996). Expressiveness in these studies is manipulated through the voice, energy, and nonverbal behavior (e.g., posture, eye contact, and facial expressions) of leaders. Leader trait expressivity should also influence perceptions of charisma because individuals with high expressivity are more likely to exhibit these expressive behaviors (Friedman & Riggio, 1981).

Leaders who are perceived as more charismatic are better able to influence follower mood (Bono, Foldes, Vinson, & Muros, 2007; Damen et al., 2008; Johnson, 2008, 2009; Weber, 1920) and group mood (Erez et al., 2008). Given their emotional appeal, leaders who are perceived as charismatic engender more attraction from followers (Bass, 1998; Bass & Riggio, 2006; Den Hartog & Koopman, 2002; Walter & Bruch, 2008). Individuals are more easily influenced by those to whom they are interpersonally attracted (Cialdini, 1993), which may extend to the realm of mood contagion (Hatfield et al., 1994). The attraction of followers to leaders who they perceive as charismatic may also increase the frequency and duration of interactions with their leaders (Bono & Ilies, 2006), providing greater exposure of followers to leaders and a greater opportunity for group mood contagion to occur (Hatfield et al., 1994). In summary, we expect leader expressivity to influence group perceptions of leader charisma and those perceptions of charisma to foster group mood contagion.

4. Leader positive and negative moods

Unlike positive mood, theories and empirical research have overlooked the role of negative mood for charismatic leaders (Dasborough et al., 2009; Gooty et al., 2010; Walter & Bruch, 2008). Expressed moods of individuals influence the extent to which others desire to approach or avoid them, such that individuals prefer to be with others who are more positive than negative (Lyubomirsky, King, & Diener, 2005). Charismatic leaders also possess attributes (e.g., high self-esteem and extraversion) that facilitate the experience and expression of positive affect (Erez et al., 2008). According to Hareli and Rafaeli (2008), leaders expressing positive moods will spend more time with followers, resulting in greater mood contagion. Mood contagion is more likely to occur when individuals have positive rather than negative relationships (Walter & Bruch, 2008). This point may explain why field research examining negative mood and charismatic leadership has failed to find a significant relationship between the negative moods of leaders and followers (Johnson, 2008). Individuals may simply try to avoid those who express negative moods in workplace contexts (Kopelman, Rosette, & Thompson, 2006).

Implicit in this argument is the idea that leaders who express a negative mood express such mood on an ongoing and long-term basis. However, the argument does not consider the role of negative moods in more discrete, short-term situations, as even the most positive leaders experience and express negative moods in a number of instances (Dasborough, 2006). Negative moods play a role in leadership (Bono & Ilies, 2006), and leaders are a primary source of negative moods at work (Bono et al., 2007). Given our argument that leader expressivity influences charisma, charismatic leaders should be equally capable of expressing positive affect and negative affect (Friedman et al., 1980). Although charismatic leaders may experience and express more positive than negative moods on balance (Erez et al., 2008; Johnson, 2008), we expect charismatic leaders to be better able to transfer both negative and positive moods to followers than less charismatic leaders.

Hypothesis 2a. Group perceptions of leader charisma will mediate the relationship between leader expressivity and positive group mood.

Hypothesis 2b. Group perceptions of leader charisma will mediate the relationship between leader expressivity and negative group mood.

5. Group mood influences group perceptions

Researchers have posited that the influence of leaders on group mood has consequences for how that leader is evaluated (Dasborough et al., 2009). However, most of the studies in this area examined the effects of leader mood on follower mood, particularly at the individual instead of at the group level of analysis. Moreover, extant research has not accounted for the effect of time in this relationship, ignoring the distal, aside from the proximal, effects of group mood (Ferris, Munyon, Basik, & Buckley, 2008; Weiss & Cropanzano, 1996) and has overlooked the recursive nature of the relationship between mood and social judgments (Hareli & Rafaeli, 2008). In the present study, we propose that group mood has multiple consequences for leaders, including proximal consequences (i.e., evaluations of leader effectiveness) and distal consequences (i.e., group perceptions of leader charisma) (Levy & Williams, 2004). Evaluative judgments of others may be made based on either *online* or *memory-based* judgments (Hastie & Parke, 1986). Online judgments are evaluations made at the time of exposure to affective events or information relevant to the judgments (i.e., in this research, the proximal effects of group mood on group perceptions of leader effectiveness). Memory-based judgments are evaluations made at a later time that are based on the recall of the initial affective event or information relevant to the subsequent judgment (i.e., in this research, the distal consequence of group perceptions of leader charisma after 1 week).

6. Group mood and group perceptions of leader effectiveness

Although leader characteristics, such as expressivity, are presumed to influence charismatic leadership, researchers agree that charisma is partly in the eye of the beholder (Den Hartog & Koopman, 2002). Individuals use their mood at the time they render a judgment as an indicator of their feelings toward a given stimulus, consistent with the affect-as-information principle (Schwarz, 1990). At the individual level of analysis, the positive and negative moods of followers have been shown to influence follower evaluations of their leaders (e.g., Johnson, 2008). Followers may use their current affective state as information about their leader and evaluate their leader in concert with their affective state (Levy & Williams, 2004).

Follower mood has been linked to evaluations of leaders at the individual level, but the link has been largely ignored at the group level. This link may be amplified at the group level, as the mood experienced at the group level may be heightened, and the judgments of group members of their leaders are mutually reinforcing (Dasborough et al., 2009). Follower-centric views of leadership argue that the attitudes of followers are not the direct effect of leader behavior but are strongly influenced by followers' sense-making of their shared experiences (Meindl, 1995). For example, positive relationships among followers, instead of actual leader behavior, can better explain leader-related perceptions (Pastor, Meindl, & Mayo, 2002). This social constructionist view of leadership supports the idea that group mood influences group perceptions of leader effectiveness. Positive group mood may lead to inferences that leaders are effective, whereas negative group mood may lead to inferences that leaders are not effective (Larsen & Ketelaar, 1989).

Hypothesis 3a. Positive group mood has proximal consequences and will positively influence group perceptions of leader effectiveness.

Hypothesis 3b. Negative group mood has proximal consequences and will negatively influence group perceptions of leader effectiveness.

7. Group mood and group perceptions of leader charisma

Although mood is likely to influence immediate impressions, mood can also have long-term effects on the evaluation of others. Affective events have lingering effects on mood, cognition, and behavior well after the initial event has occurred (Rimé, 2007). Theories of mood-congruent learning (Bower, Gilligan, & Monteiro, 1981) also posit that groups tend to link positive (or negative) affective events with their leaders, causing groups to recall more positive (or negative) information about leaders, which is then incorporated into judgments about the leaders (Schwarz, 1990). Individuals are better at recalling mood-consistent information associated with the mood sender (Doherty, 1998). When rendering distal judgments about leader charisma, groups may recall previous affective events and reactions (i.e., group mood) and, once recalled, use that information to render a corresponding judgment about leader charisma (Weiss & Cropanzano, 1996).

Groups may also recall leader mood at the time of the affective event and use that mood to make inferences about leaders. Relational scripts that “tell a story” about leaders may accompany leader mood (Frijda, 1986; Lazarus, 1991). Recent research shows that individuals “reverse engineer” appraisals underlying the affective reaction of others and use this information to form judgments about others (Hareli & Hess, 2010). Recalled negative leader mood may lead to inferences that the leader is an ineffective, unlikeable, and pessimistic person (e.g., Larsen & Ketelaar, 1989), traits that are not characteristic of charismatic leaders. Likewise, recalled

positive leader mood may lead to inferences that the leader is an effective, likable, and optimistic person (Watson, 2000), traits that are characteristic of charismatic leaders.

Hypothesis 4a. Positive group mood has distal consequences and will positively influence group perceptions of leader charisma.

Hypothesis 4b. Negative group mood has distal consequences and will negatively influence group perceptions of leader charisma.

8. Mediating role of group perceptions of leader effectiveness

We expect that group perceptions of leader effectiveness will mediate the relationship between group mood and group perceptions of leader charisma because proximal consequences may serve as antecedents for distal consequences (Hareli & Rafaeli, 2008; Smith & Pope, 1992). Groups may recall previous evaluations of their leaders (leader effectiveness) and use that information to render subsequent judgments about the charisma of their leaders. Although the link between effectiveness and charismatic leadership has been well established in the literature (DeGroot et al., 2000), the causal link emanating from group mood to leader effectiveness and charisma still awaits research. As charismatic leadership is perceived to be a particularly effective style of leadership, we expect that group perceptions of leader effectiveness will mediate the relationship between group mood and group perceptions of leader charisma.

Hypothesis 5. Group perceptions of leader effectiveness will positively influence group perceptions of leader charisma.

Hypothesis 6a. Group perceptions of leader effectiveness will mediate the relationship between positive group mood and group perceptions of leader charisma.

Hypothesis 6b. Group perceptions of leader effectiveness will mediate the relationship between negative group mood and group perceptions of leader charisma.

9. Method

Following the procedure outlined in Sy et al. (2005), we used an experimental design that allowed us to test the causal relationships proposed in our theoretical framework. A key proposition in this research is that charismatic leaders influence group-level mood via the mood contagion process (Cherulnik et al., 2001; Damen et al., 2008). As such, it was important for us to manipulate leader mood in an experimental design to isolate the causal direction of mood from leaders to followers. Otherwise, it would be unclear if leaders' reported or rated moods were driving the effects or some other corollary of leaders' moods were operating (for example, leader extraversion has been associated with positive moods). Using observation rather than manipulating moods makes it difficult to examine the effects of leader negative mood because individuals may simply try to avoid those who express negative moods in workplace contexts (Kopelman et al., 2006). Further, we conducted our experiment with intact groups with existing norms and interaction histories, enhancing the external validity of the findings.

9.1. Participants

Participants were 116 groups (41 positive mood condition groups, 41 negative mood condition groups, and 34 neutral mood condition groups) consisting of 421 participants from undergraduate organizational behavior courses. Students were randomly assigned to groups to fulfill the course requirements of completing group assignments. The size of the groups ranged from three to five, with 47 three-member groups, 66 four-member groups, and 3 five-member groups. Groups spent on average 2 h per week together, and their interactions had spanned 2.5 months at the time of the study.

9.2. Context

We empirically tested our propositions within the context of self-managing groups (Hackman, 1986). Although roles and responsibilities are shared in self-managing groups, some form of leadership is always present (Manz & Sims, 1993). Any member may be called on to provide leadership on a given task because the roles that members assume in self-managing groups are flexible and dynamic (Den Hartog & Koopman, 2002). For any given task, the leader is typically the member with the most appropriate knowledge, skills, and abilities for that task (Dinh & Lord, 2012; Pescosolido, 2002; Shamir, 1999; Sy et al., 2005). Aside from our rationale above, examining our hypotheses within the context of self-managing groups represents a conservative test of the antecedents and consequences of group mood. The proposed relationships between group perceptions of leader charisma and group mood are expected to be stronger in traditional groups where leadership status is stable, formalized, and situated in a hierarchical context. As such, it seems plausible that leader effects found in self-managing groups would also occur in more traditional hierarchical groups.

9.3. Procedure

We randomly assigned groups to either a positive, negative, or neutral mood condition in a one-hour experiment conducted by trained research assistants who were blind to the study hypotheses. We conducted the study in three sequential stages. First, we assessed leader expressivity (leader self-report) and group perceptions of leader charisma (group member rated) 1 week prior to the experiment (Time 1). Second, groups participated in the one-hour experiment and subsequently evaluated leader effectiveness (Time 2). Third, 1 week after the experiment, group members reported their perceptions of leader charisma again (Time 3). In what follows, we provide more details about the experiment portion of the study.

For the experiment conducted at Time 2, participants were provided with a cover story indicating that the goal of the study is to examine group interaction effects on memory recall. Accordingly, participants were informed that the study required them to 1) memorize information, 2) interact with group members, and 3) take a memory test. As the study required participants to report their mood at various time points, which might have caused suspicion regarding the nature of the study, we informed participants that the mood assessment was necessary to control for the differences in how people felt because past studies have shown that mood affects memory recall. Both leaders and members then completed the first mood scale that assessed their baseline mood.

To test our hypothesis that leader characteristics (i.e., expressivity) influence group mood, groups were exposed to a leader whose mood had been manipulated. Because the task in this study was new to participants and critical instructions were confined to leaders, leaders possessed the legitimacy and critical knowledge that afforded them sufficient influence to function as the leader. Accordingly, leaders were randomly appointed in each self-managing group. Leaders were then separated from their groups and informed that the task for this study required them to set up a tent while blindfolded (Quinn, 2000). The blindfolded tent exercise is ideal for studying interpersonal interactions and moods in groups because the blindfolds alleviate the effects that observers have on participants, resulting in less self-conscious and more candid and natural behaviors (Sy et al., 2005). Only leaders were provided a pamphlet with instructions and pictures for erecting the tent. Although the pamphlet provided critical information, the instructions were incomplete. Consequently, groups were able to vary their strategies, processes, and procedures for building the tent. Leaders were given 5 min to study the pamphlet and were subsequently tested on the tent-building procedures with a questionnaire. The experimenter further clarified any incorrect answers provided by the leaders. This process check ensured that all leaders had the same knowledge base to perform the task.

We then manipulated leader mood. Following the tent knowledge test, leaders were told that they had been selected to memorize visual information while their teammates would memorize verbal information. Leaders were informed that they would be shown a randomly selected video segment and that they should be particularly attentive because we would be testing their recall of the information contained in the video segment following the tent exercise. In actuality, leader mood was manipulated with one of two 8-minute film clips. For the positive mood condition, leaders viewed a humorous clip of David Letterman. For the negative mood condition, leaders viewed a documentary about social injustice and aggression. These film clips have been proven successful in eliciting positive and negative moods (e.g., Saavedra & Earley, 1991; Sy et al., 2005). For the neutral mood condition, leaders viewed a documentary about the history of art. Leaders completed a mood scale after viewing the film clips (post-manipulation mood of leaders). This measure was a manipulation check to ensure that the induction of mood in leaders was successful. Leaders were then reunited with their groups. While leaders watched the film clips, group members were kept busy with the bogus task of memorizing a list of words.

In the next stage of the experiment, leaders interacted with their groups to plan for the task and subsequently engaged in the task. Group members' moods were expected to converge with leader mood during this interaction. Following this interaction, group members completed a mood scale (post-interaction mood of group members). Although not necessary, leaders also completed the mood scale to alleviate any suspicion. The post-interaction mood of group members was used to examine the association of leader characteristics (i.e., charisma and expressivity) with group mood. To follow through with the cover story, all participants were given a bogus memory recall test following the task. Participants were subsequently debriefed and thanked for their contribution.

9.4. Measures

The study variables were reported by both leaders and group members at three time points (i.e., T1, T2, and T3). All variables rated by group members (i.e., leader charisma, group mood, leader effectiveness) were aggregated to the group level. As described in the Results section, we first determined that there was sufficient within-group agreement for these constructs to justify group-level aggregation.

9.4.1. Leader expressivity

At Time 1, we assessed leader expressivity with the 13-item Affective Communication Test developed by Friedman et al. (1980). Sample items included “When I hear good dance music, I can hardly keep still” and “I usually have a neutral facial expression” (reverse coded). Leaders responded to each item by indicating the degree to which each statement is true for them on a nine-point Likert-type scale. Cronbach's alpha of .93 was deemed acceptable.

9.4.2. Group perceptions of leader charisma

Leader charisma was evaluated by the members of each group. Time 1 and Time 3 group perceptions of leader charisma were assessed 1 week before and after the experiment, respectively. We used the three subscales (i.e., Idealized Influence, Inspirational

Motivation, and Attributed Charisma) of Bass and Avolio's (1995) Multifactor Leadership Questionnaire to measure group perceptions of leader charisma. Group members responded to the 12-item measure of leader charisma by indicating the frequency that leaders engaged in a particular behavior on a five-point Likert-type scale. Based on the current theoretical conceptualization of charismatic leadership (Bass, 1998; Bass & Riggio, 2006), we combined the items to form an overall measure of group perceptions of leader charisma. The leader charisma scale at T1 and T3 exhibited acceptable reliabilities of .89 and .88, respectively.

9.4.3. Leader and group mood

During the experiment conducted at Time 2, mood was assessed with the Job Affect Scale (Burke, Brief, George, Roberson, & Webster, 1989). As described earlier, leaders and group members self-reported their mood at various time points during the experiment. Positive mood consists of six high-arousal positive mood items (e.g., enthusiastic and excited, $\alpha = .87$). Negative mood consists of six high-arousal negative mood items (e.g., angry and frustrated, $\alpha = .85$). We focus on high-arousal moods because contagion is more likely to occur with these moods than with low-arousal moods (Damen et al., 2008; Hatfield et al., 1994). The Job Affect Scale has been used in past research examining mood in groups and other organizational contexts (Johnson, 2008, 2009; Saavedra & Earley, 1991; Sy et al., 2005). Employing the recommended procedure (Kelly & Barsade, 2001), group mood was measured by aggregating group members' mood to the group level.

9.4.4. Group perceptions of leader effectiveness

At the end of the experiment at Time 2, we assessed leader effectiveness using four items ($\alpha = .85$) adapted from van Knippenberg and van Knippenberg (2005). Sample items included "Our group leader is very effective as a leader" and "Our group leader is a good leader." Group members assessed leader effectiveness following their completion of the tent task. Group members responded to each item by indicating the degree to which they agree with each statement on a five-point Likert-type scale.

10. Results

10.1. Preliminary analyses

Table 1 presents the descriptive statistics and intercorrelations among the study variables. Before testing our hypotheses, we conducted preliminary analyses to ensure that the mood induction in leaders was successful. We also examined r_{wg}, ICC(1) and ICC(2) statistics to justify the aggregation of individual scores to the group level for the variables of leader charisma, group mood, and leader effectiveness.

10.1.1. Mood induction in leaders

We conducted a manipulation check to ensure that mood induction in leaders was successful by confirming that leader mood differed after watching the video clips. As expected, leaders in the positive mood condition reported more positive mood ($M = 4.42$, $SD = .80$) than leaders in the negative mood condition ($M = 2.49$ $SD = .73$) and leaders in the neutral mood condition ($M = 3.20$, $SD = .79$), $F(2, 113) = 65.65$, $p < .001$. Likewise, leaders in the negative mood condition reported more negative mood ($M = 3.63$, $SD = 1.05$) than leaders in the positive mood condition ($M = 2.39$, $SD = .95$) and leaders in the neutral mood condition ($M = 2.93$, $SD = .93$), $F(2, 113) = 16.54$, $p < .001$. Furthermore, we verified that the moods of leaders changed from before to after seeing the video depending on their experimental condition. As expected, leaders in the positive mood condition were in a more positive mood after watching the video ($M = 4.42$, $SD = .80$) than before ($M = 3.02$, $SD = .76$), $t(40) = -9.82$, $p < .001$. Likewise, leaders in the negative mood condition were in a more negative mood after seeing the video ($M = 3.63$, $SD = 1.05$) than before ($M = 2.56$, $SD = .95$), $t(40) = -5.04$, $p < .01$. In addition, leaders in the neutral mood condition did not differ in positive mood before the video ($M = 2.98$, $SD = .69$) and after the video ($M = 3.20$, $SD = .79$), $t(33) = -1.56$ $p > .05$, and they did not differ in negative mood before the video ($M = 2.90$, $SD = .98$) and after the video ($M = 2.93$, $SD = .93$), $t(33) = -.54$ $p > .05$. Results indicate that mood induction in leaders was successful.

10.1.2. Aggregation

Before proceeding to hypothesis testing, we examined the group-level properties of member-rated variables (Table 2). For T1 group perceptions of leader charisma, the average r_{wg} was .81, and the ICC(1) and ICC(2) values were .36 and .93, respectively. For T3 group perceptions of leader charisma, the average r_{wg} was .83, and the ICC(1) and ICC(2) values were .33 and .94, respectively.

Table 1
Descriptive statistics and correlations among study variables.

	M	SD	1	2	3	4	5
1. T1 leader expressivity	4.74	1.79					
2. T1 group perceptions of leader charisma	2.55	.60	.45***				
3. T2 positive group mood	3.52	.80	.22*	.31**			
4. T2 negative group mood	2.51	1.03	.13	.20*	−.32**		
5. T2 group perceptions of leader effectiveness	2.96	.85	.14	.17[a]	.44***	−.47***	
6. T3 group perceptions of leader charisma	2.67	.67	.15	.18[a]	.36***	−.55***	.49***

Note. [a]$p = .06$; *$p < .05$; **$p < .01$; ***$p < .001$. See Appendix A for supplemental analysis for positive and negative mood conditions.

Table 2
Scale properties for group-level aggregation.

	r_{wg}	ICC(1)	ICC(2)
1. T1 group perceptions of leader charisma	.81	.36	.93
2. T2 positive group mood	.77	.32	.81
3. T2 negative group mood	.76	.41	.89
4. T2 group perceptions of leader effectiveness	.81	.49	.90
5. T3 group perceptions of leader charisma	.83	.33	.94

Regarding positive group mood, the average r_{wg} was .77, and the ICC(1) and ICC(2) values were .32 and .81, respectively. Regarding negative group mood, the average r_{wg} was .76, and the ICC(1) and ICC(2) values were .41 and .89, respectively. For group perceptions of leader effectiveness, the average r_{wg} was .81, and the ICC(1) and ICC(2) values were .49 and .90, respectively. These results support the aggregation of individual scores to the group level and justify the testing of our hypotheses at the group level of analysis.

10.2. Hypothesis testing

We tested our hypotheses separately for each of the conditions that manipulate different moods among leaders. We expected our hypotheses to hold true for our two experimental groups (i.e., positive and negative mood conditions) but not for the neutral mood condition due to the lack of a salient mood experienced by the leaders.

10.2.1. Leader characteristics and group mood

Hypotheses 1a and 1b state that leader expressivity will positively influence (a) positive and (b) negative group moods. For groups in the positive mood condition, leader expressivity enhanced positive group mood ($r = .49$, $p < .001$), but not negative group mood ($r = -.04$, $p > .05$). For groups in the negative mood condition, leader expressivity increased negative group mood ($r = .44$, $p < .01$), but not positive group mood ($r = -.09$, $p > .05$). For groups in the neutral mood condition, leader expressivity did not influence positive ($r = .07$, $p > .05$) nor negative group mood ($r = .08$, $p > .05$). These results support Hypotheses 1a and 1b and extend past research by demonstrating the significant effects of leader expressivity on both positive and negative group moods.

10.2.2. Group perceptions of leader charisma as a mediating mechanism

In Hypotheses 2a and 2b, we posit that the relationship between leader expressivity and (a) positive and (b) negative group moods will be mediated by group perceptions of leader charisma. To test our mediation hypotheses, we employed bootstrap analysis. Recent developments recommend bootstrap analysis for testing mediation because it affords a formal significance test of the indirect effect without assuming that the indirect effect is normally distributed, thus effectively avoiding problems introduced by asymmetric and non-normal sampling distributions that often characterize mediated relationships (MacKinnon, Lockwood, & Williams, 2004). This procedure bootstraps the sampling distribution of the indirect effect and empirically derives the confidence intervals for the true population of that effect. We conducted simple mediation analyses and constructed bias-corrected confidence intervals around the product coefficient of the indirect (mediated) effect using the SPSS macro created by Preacher and Hayes (2008).

The results of our mediation analyses are reported in Table 3. Bootstrap analyses provide support for both Hypotheses 2a and 2b only for the positive group mood condition. As depicted in Fig. 2, group perceptions of leader charisma significantly mediate the relationship between leader expressivity and (a) positive group mood, with a point estimate of .09 and 95% confidence interval of .02 and .22 (supporting Hypothesis 2a), and (b) negative group mood, with a point estimate of −.05 and 95% confidence interval of −.13 and −.01 (supporting Hypothesis 2b). Group perceptions of leader charisma partially and fully mediated the relationship between leader expressivity and positive and negative group moods, respectively. Notably, group perceptions of leader charisma increased positive group mood and decreased negative group mood. These results reinforce research suggesting that positive affect may be a core aspect of charismatic leadership (Gooty et al., 2010; Walter & Bruch, 2008). Unexpectedly, results for groups in the negative mood condition were not significant. While leader expressivity does influence negative group mood ($r = .44$, $p < .01$), such an effect does not go through group perceptions of leader charisma.

10.2.3. Group mood and consequences for leaders

Hypotheses 3a and 3b and Hypotheses 4a and 4b state that positive and negative group moods will positively and negatively influence group perceptions of leader effectiveness and subsequent group perceptions of leader charisma. Again, we expected that the hypotheses would hold true for the experimental groups only and be consistent with the valence of manipulated mood. In the positive mood condition, positive group mood (but not negative group mood) was positively associated with group perceptions of leader effectiveness ($r = .38$, $p < .01$) and T3 group perceptions of leader charisma ($r = .47$, $p < .05$). In the negative mood condition, negative group mood (but not positive group mood) was negatively associated with group perceptions of leader effectiveness ($r = -.42$, $p < .01$) and T3 group perceptions of leader charisma ($r = -.55$, $p < .001$). In the neutral mood condition, positive and negative group moods were associated with leader effectiveness ($r = .45$, $p < .01$, and $r = -.40$, $p < .05$, respectively) but not with group perceptions of leader charisma at Time 3. These results provide full support for Hypotheses 3a and 3b and Hypotheses 4a and 4b, indicating that group mood is associated with both proximal (leader effectiveness) and distal (leader charisma) consequences for groups in the experimental conditions, whereas group mood is associated only with proximal consequences for groups in the neutral mood condition.

Table 3
T1 group perceptions of leader charisma mediating the relationship between leader expressivity and group mood.

		Product of coefficients				Bootstrapping bias-Corrected 95% CI	
		Point estimate	*SE*	*z*	*P*	Lower	Upper
Positive mood condition	Positive group mood	**.09**	**.04**	**2.14**	**.03**	**.02**	**.22**
	Negative group mood	**−.05**	**.03**	**−2.16**	**.03**	**−.13**	**−.01**
Negative mood condition	Positive group mood	.06	.03	1.74	.08	−.01	.15
	Negative group mood	.07	.05	1.29	.19	−.03	.23
Neutral mood condition	Positive group mood	.02	.02	1.03	.30	−.02	.10
	Negative group mood	.03	.03	.89	.38	−.03	.13

Note. Bootstrap sample size = 1000. Coefficients in bold indicate significant mediation. CI = confidence interval.

We predicted in Hypothesis 5 that group perceptions of leader effectiveness will positively influence subsequent group perceptions of leader charisma assessed at T3. This expectation was confirmed for groups in the positive and negative mood conditions ($r = .43$, $p < .01$ and $r = .56$, $p < .001$, respectively) but not for our neutral mood condition ($r = -.16$, $p > .05$). Hypotheses 6a and 6b posit that group perceptions of leader effectiveness will mediate the relationship between group mood and subsequent group perceptions of leader charisma. The results of our bootstrap analyses reported in Table 4 provide support for this mediating hypothesis. As shown in Fig. 3, the coefficients for the relationship between (1) the independent variable and the mediator, and (2) the mediator and the dependent variable are consistent with our hypotheses that group perceptions of leader effectiveness mediate the relationship between positive group mood (Hypothesis 6a) and negative group mood (Hypothesis 6b) with T3 group perceptions of leader charisma. For the groups in the neutral mood condition, leader effectiveness perceptions did not mediate the relationship between group mood and leader charisma.

11. Discussion

This study presents a reciprocal relationship between group perceptions of leader charisma and group mood. As expected, leader expressivity fosters the transfer of both positive and negative moods to group members. Group perceptions of leader charisma also mediate the relationship between leader expressivity and group mood for the positive mood condition but not for the negative mood condition. Although leader expressivity is related to follower mood in the negative mood condition, group perceptions of leader charisma do not explain this relationship. Results also clarify the mechanisms through which perceived leader charisma and group mood shape

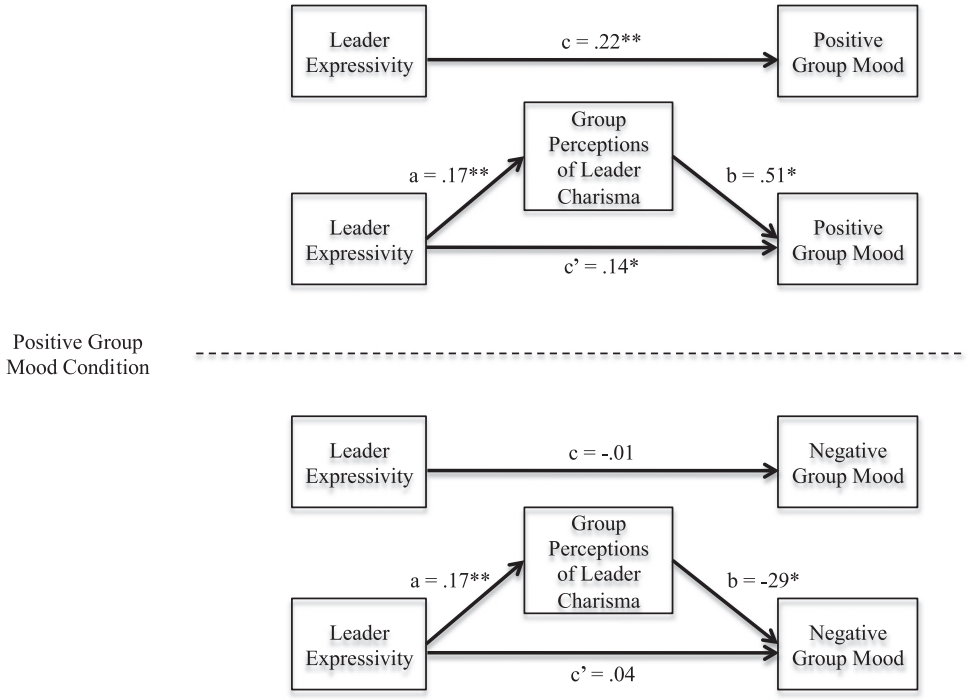

Fig. 2. Group perceptions of leader charisma as the mediator of the leader expressivity-group mood relationship for positive mood condition. The a path represents the relationship between the predictor variable and the mediator variable; the b path represents the relationship between the mediator variable and the outcome variable; the c path represents the total effect; and the c-prime path represents the direct effect. * $p < .05$; ** $p < .01$; *** $p < .001$. High negative group-leader affective diversity.

Table 4
Group perceptions of leader effectiveness mediating the relationship between group mood and T3 group perceptions of leader charisma.

		Product of coefficients				Bootstrapping bias-Corrected 95% CI	
		Point estimate	*SE*	*z*	*p*	Lower	Upper
Positive mood condition	Positive group mood	**.10**	**.06**	**1.63**	**.10**	**.02**	**.35**
	Negative group mood	−.16	.16	−1.02	.31	−.58	.03
Negative mood condition	Positive group mood	.05	.09	.55	.58	−.14	.31
	Negative Group Mood	**−.11**	**.05**	**−2.11**	**.04**	**−.24**	**−.03**
Neutral mood condition	Positive group mood	−.15	.15	−1.00	.32	−.70	.11
	Negative group mood	.08	.07	1.04	.30	−.01	.44

Note. Bootstrap sample size = 1000. Coefficients in bold indicate significant mediation. CI = confidence interval.

each other over time. The focus on time enabled us to demonstrate that group mood influences proximal (immediate) judgments about leader effectiveness and more distal (1 week later) perceptions of leader charisma. These findings are consistent with past theories, which posit that mood at work can influence both proximal and distal outcomes (Weiss & Cropanzano, 1996). An important finding of this research concerns the transient nature of group perceptions of leader charisma in which a single affective display affects the subsequent judgments of leader charisma. These results challenge the current view of leader charisma as a stable and static construct.

11.1. Theoretical and practical implications

The findings of this study offer important theoretical implications for group mood and leadership. First, our findings highlight the importance of a leader trait (expressivity) as influencing both perceptions of charisma and group mood, answering the call in the literature for the better understanding of leader traits that influence these outcomes (Erez et al., 2008; Hareli & Rafaeli, 2008; Walter & Bruch, 2008). Managers may also act on this finding (i.e., leader expressivity) to influence followers' evaluation of leadership effectiveness and to channel group mood for performance gain (Antonakis, Fenley, & Liechti, 2011). Although expressivity is positively linked to charisma, expressivity can be detrimental if leaders cannot inhibit the expression of negative mood. In this respect, research shows that emotional intelligence, a component of which involves the ability to regulate the expression of moods and emotions, is related to effective leadership (George, 2000; Wolff, Pescosolido, & Druskat, 2002). Future research may consider the moderating effect of leader emotional intelligence in mood contagion contexts to understand fully the influence of leader expressivity on perceived leader effectiveness and charisma.

Second, our results clearly indicate the recursive function between group perceptions of leader charisma and group mood. In the first stage, leaders who are more expressive (as a trait) are perceived as more charismatic, and leaders who are more charismatic are better

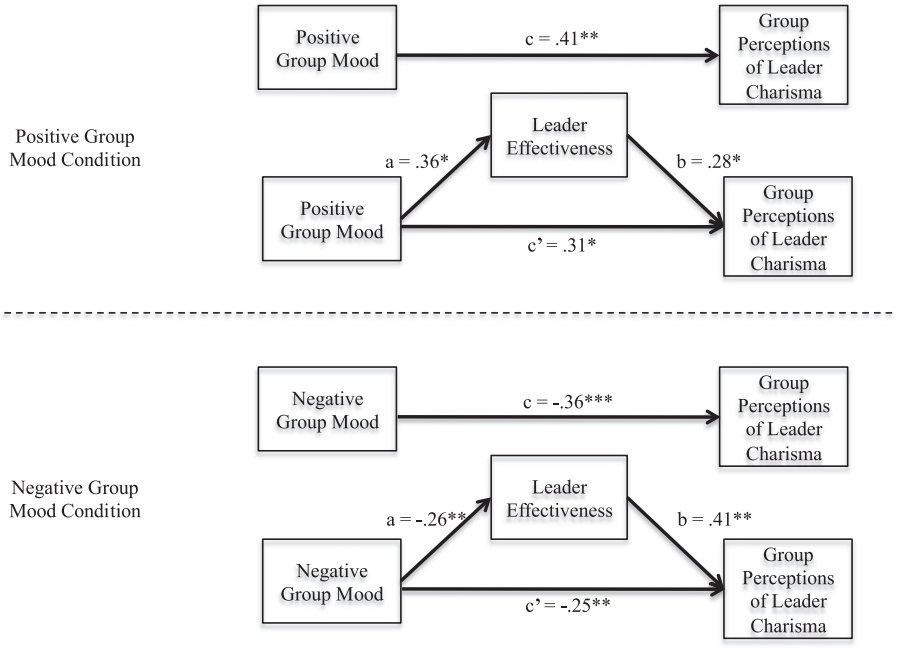

Fig. 3. Group perceptions of leader effectiveness as the mediator of the group mood–group perceptions of leader charisma relationship. The a path represents the relationship between the predictor variable and the mediator variable; the b path represents the relationship between the mediator variable and the outcome variable; the c path represents the total effect; and the c-prime path represents the direct effect. $^{*}p<.05$; $^{**}p<.01$; $^{***}p<.001$.

able to transfer their moods to their groups. In the subsequent stage, group mood shapes the judgments of groups and perceptions of leaders (Meindl, 1995). Group mood specifically predicts group perceptions of leader charisma 1 week later, and the group's immediate judgment on leader effectiveness partially mediates the relationship. These findings resolve the apparent conflict between researchers who argue that charisma precedes follower mood and those who argue that follower mood precedes perceptions of charisma (e.g., Damen et al., 2008; Erez et al., 2008; Johnson, 2008, 2009). Our results demonstrate that both processes are true, but they cannot be fully understood without considering time in dynamic group processes.

Third, our approach enables us to understand better the role of negative mood in charismatic leadership, which has been overlooked in leadership studies (Dasborough et al., 2009). Although charismatic leaders tend to express more positive moods than non-charismatic leaders (Bono & Ilies, 2006), we found that charismatic leaders are effective in transferring both positive and negative moods to their groups, with negative group mood generating deleterious effects such that leaders are subsequently perceived as less effective and charismatic. Leaders in this study interacted with members for 2 h per week for two and a half months before the experiment, giving group members sufficient time to form general impressions of their leaders. However, one negative affective event with the leader in the present experimental setting had significant negative effects not only on group perceptions of leader effectiveness in the immediate sense but also on group perceptions of leader charisma 1 week later.

This finding highlights the cognitive asymmetry of negative affective events that empirical studies on memory, learning, child development, information processing, and impression formation demonstrate (see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001, for a review). Leaders should remember that even a single negative affective event can effectively negate a history of positive interactions, and it has potentially lasting negative effects on the group perceptions of leaders. Although leaders will inevitably engender positive and negative events, the benefits of charisma are likely realized to the extent that leaders maintain a three-to-one ratio of positive to negative experiences with followers (Fredrickson, 2009).

An interesting note is that consistent independent effects for positive and negative moods are present at the group level (Watson & Tellegen, 1985). The positive mood induction in leaders increases group positive mood but does not decrease group negative mood. Similarly, the negative mood induction in leaders only changes group negative mood without affecting positive mood. Our hypotheses are supported only in experimental conditions with either positive or negative mood manipulated for leaders. By contrast, the hypothesized connection between leader characteristics and group mood and the subsequent feedback loop from group mood to leader characteristics do not occur in the neutral mood condition.

11.2. Methodological implications

In terms of methodology, the present study addresses a number of the limitations of prior research and makes distinct empirical contributions to the literature. First, we investigated mood contagion at the group level, whereas most research examined mood contagion at the dyadic level. In contemporary organizations, groups represent the fundamental social system for organizing work, and group processes may actually enhance the process of mood contagion as group members mutually reinforce shared mood among one another. Understanding group-level processes involving leadership and mood is a meaningful agenda for research.

Second, the methodological rigor of the present experiment combined with the use of intact task groups enhances the validity of our findings. For example, group perceptions of leader charisma were measured before the experimental manipulation of mood, ensuring that these judgments would be independent from the manipulation. The transfer of mood is also consistent with the experimental condition (i.e., charismatic leaders transfer more positive mood in the positive mood condition and more negative mood in the negative mood condition). Thus, we are confident that the effects are due to leader mood and not to outside factors, a confound that plagues correlational research on mood contagion.

Third, this study highlights the importance of including time in organizational research. Without the application of the longitudinal experimental design, we would not be able to disentangle the reciprocal relationship between group mood and leader charisma. Scholars have highlighted the importance of (a) randomized experimental designs and (b) the use of time in properly interpreting complex psychological processes involving mediating variables (Dinh & Lord, 2012; Maxwell & Cole, 2007). However, a review of research specifically examining mediating processes reveals that only 11% of studies include a logical time ordering of independent, mediating, and dependent variables (Wood, Goodman, Beckmann, & Cook, 2008). Researchers need to recognize that both lack of experimental control and neglect of time can result in erroneous conclusions about the ordering of and relationships among variables.

12. Study limitations and conclusion

This study also has limitations, particularly in relation to the sample used to test the hypotheses. Although the groups in this study were intact work groups, the work context was a college course, creating a number of limitations to the generalizability of findings. In many ways, these groups share the characteristics of an experimental setting. For example, mood was manipulated in the leaders, creating a potentially and unnaturally high level of mood among them. In other ways, the groups resemble groups in field research with intact relationships in that they had group norms and pre-existing impressions of one another before the experiment took place. Although this setting was chosen to maximize internal validity (by enabling us to manipulate mood) and achieve a certain level of external validity (by using intact groups), the findings may not be fully generalizable to work groups in business organizations. Researchers may carry out field investigations using organizational teams to validate further the recursive feedback loop observed in this study.

Our results are consistent with past research, indicating that group mood is a function of primitive mood contagion that tends to operate automatically and subconsciously (Hatfield et al., 1994). The evidence for primitive mood contagion as the mechanism for

group mood is well established in a variety of work contexts (e.g., Bartel & Saavedra, 2000; Hatfield et al., 1994; Johnson, 2008; Totterdell, 2000; Totterdell, Kellett, Teuchmann, & Briner, 1998). However, group mood may also be a function of conscious processes such as emotional comparison (Bartel & Saavedra, 2000) and emotion as social information (EASI) processes (van Kleef, De Dreu, & Manstead, 2010). For example, followers can consciously process and interpret the moods of their leaders and empathize with them so that they come to experience the same mood.

Although such conscious mood processing is plausible, several reasons implicate primitive mood contagion as the mechanism. First, our study procedure used a cover story and deception so that both leaders and followers lacked awareness of the role of mood in shaping group processes and outcomes. Our post-study-funneled interviews confirm that mood is not salient to participants, which argues against conscious mood contagion processes. Second, our study examined mood, which is more diffuse and lacks awareness of the causal factor (in this case, leaders) compared with discrete emotions. These mood characteristics are consistent with the automatic and subconscious processes of primitive mood contagion. By contrast, the EASI model is focused on discrete emotions that tend to operate at a conscious level (van Kleef et al., 2010). Third, compared with primitive mood contagion, conscious models of mood contagion (i.e., emotional comparison) are more likely to elicit counter mood contagion (e.g., awareness of the joy expressed by the triumphant group triggers anger in the losing group) (Epstude & Mussweiler, 2009). Our research found only concordant mood contagion, which provides further support to the primitive mood contagion.

We did not examine the various outcomes associated with charisma and group mood because of our focus on the reciprocal relationships between group perceptions of leader charisma and group mood. The literature provides abundant empirical evidence that charismatic and transformational styles of leadership drive group effectiveness (Bass, 1988; Bass & Riggio, 2006). Studies on group mood have also provided preliminary evidence that positive group mood is related to citizenship behaviors, task coordination, and group performance (Barsade, 2002; George, 1995; Ilies et al., 2007; Sy et al., 2005). It is possible that charismatic leaders improve group performance by generating a positive affective climate in the group.

Nevertheless, expressive leaders are capable of enhancing both positive and negative moods among group members because these leaders are perceived to be more charismatic. Whether positive or negative mood enhances performance remains controversial. Both positive and negative moods may offer distinct benefits and shortcomings for group decision making and performance management. For example, although the bulk of the literature provides evidence of positive effects of positive mood (Lyubomirsky et al., 2005), emerging research presents that negative mood may also have positive consequences for group outcomes such as creative performance (George & Zhou, 2007) and effort expenditure (Sy et al., 2005). Researchers may explore the possibility that charismatic and non-charismatic leaders can shape different forms of group mood that may have significant implications for subsequent unfolding group processes. That said, the present study illustrates the critical role of leaders as architects of affective experiences of groups, which have consequences for leaders. Leadership is an affect-laden process. Leading may require emoting, and to the extent that leader charisma enhances leaders' subsequent influence and ability to lead, what leaders emote may determine how effectively they lead.

Appendix A

Supplemental analysis for positive and negative mood conditions.

Positive mood condition: descriptive statistics and correlations among study variables.

	M	SD	1	2	3	4	5
1. T1 leader expressivity	5.19	1.55					
2. T1 group perceptions of leader charisma	2.59	.54	.48**				
3. T2 positive group mood	4.15	.71	.49**	.54***			
4. T2 negative group mood	1.96	.35	−.04	−.37*	−.66***		
5. T2 group perceptions of leader effectiveness	3.52	.69	.31*	.37*	.38*	−.17	
6. T3 group perceptions of leader charisma	3.14	.45	.37*	.59***	.46**	−.17	.39*

* $p<.05$.
** $p<.01$.
*** $p<.001$.

Negative mood condition: descriptive statistics and correlations among study variables.

	M	SD	1	2	3	4	5
1. T1 leader expressivity	4.51	1.94					
2. T1 group perceptions of leader charisma	2.62	.69	.46**				
3. T2 positive group mood	3.34	.68	−.09	.24			
4. T2 negative group mood	3.09	1.37	.44**	.38*	−.12		
5. T2 group perceptions of leader effectiveness	2.45	.72	−.04	.18	.09	−.42**	
6. T3 group perceptions of leader charisma	2.21	.63	−.13	.14	.07	−.55***	.56***

* $p<.05$.
** $p<.01$.
*** $p<.001$.

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